

REMARKS

Claims 1-7, 9, 12-15, and 18-30 are pending in the present application. In the Office Action mailed November 29, 2006, the Examiner rejected claims 1-7, 9, 12-14, 20-27, 29, and 30 under 35 U.S.C. §103(a) as being unpatentable over Possin et al. (USP 5,430,298 – hereinafter Possin) in view of Guyot (USP 4,948,978). The Examiner next rejected claims 15, 19, and 28 under 35 U.S.C. §103(a) as being unpatentable over Possin et al. in view of Guyot and Mattson et al. (USP 6,553,092 – hereinafter Mattson). Claim 18 is rejected under 35 U.S.C. §103(a) as being unpatentable over Possin et al., Guyot, and Mattson et al. as applied to claim 15, and further in view of Rushbrooke et al. (USP 5,682,411).

Claims 15, 18, 19, and 28 are objected to by the Examiner foreign in from out of eight which appears to be a minor draft error. The Examiner suggested inserting an -- a – between the words “project” and “high”. Applicant has amended the claim as suggested by the Examiner. Accordingly, applicant requests withdrawal of the objection of claims 15, 18, 19, and 28.

The Examiner rejected claims 1, 20, and 30 under 35 U.S.C. §103(a) as being unpatentable over Possin in view of Guyot. The Examiner also rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Possin in view of Guyot and Mattson.

Applicant has amended claim 1, in part, to incorporate the subject matter of claim 5. Amended claim 1 calls for, in part, an optical mask formed of optical absorbing material, and the optical mask located closer to listen to litter array of the plurality of photodiodes. Claim 15 calls for an array of optical cross-talk inhibitors formed of optically absorbent material. Applicant has amended claim 15 to call for, in part, the array of optical cross-talk inhibitors located closer to the layer of the array of scintillators than the array of photodiodes. Applicant has amended claim 20 to incorporate the subject matter of claim 22. Amended claim 20 calls for, in part, providing an optical cross-talk mask, wherein providing an optical cross-talk mask includes the step of forming a grid of light-absorbing elements and arranging the cellular arrangement of scintillators such that the optical cross-talk mask is located closer to the cellular arrangement of scintillators than the cellular arrangement of photodiodes. Claim 30 calls for, in part, a least one mask element of optically absorbing material, the at least one mask element located closer to the first and the second scintillators than the first and the second photodiodes.

Possin teaches a CT imager that “includes a scintillator and a photosensor array optically coupled to the scintillator through an optical coupling layer.” *Abstract*. Possin discloses:

The optical coupling layer further includes a pixel boundary light barrier that is made of light absorptive material disposed in the optical coupling layer overlying the areas on the photosensor array first surface between respective fully

photoactive regions of the photosensitive devices. The pixel boundary light barrier is disposed to absorb substantially all light photons passing along a path between the scintillator and pixels in the photosensor array other than the pixel underlying the portion of the scintillator in which the light photons were generated, thereby reducing noise and cross-talk in the array and enhancing the linear operating characteristics of photosensors in the array.

Id. (emphasis added).

The Examiner stated that Possin, however, “fails to disclose an optical mask located closer to a scintillator than a photodiode array.” *Office Action*, 11/29/06, pg. 3. The Examiner then stated that Guyot teaches an optical mask located closer to a scintillator than a photodiode array. *Id.* at 4. The Examiner Concluded that “it would have been obvious, to one having ordinary skill in the art at the time the invention was made, to include the apparatus of Possin et al. with the closer optical mask of Guyot, since one would have been motivated to make such a modification to improve the signal-to-noise ratio (col. 3, lines 23-26) as implied from Guyot.” Applicant respectfully disagrees.

Guyot does not teach or suggest a mask formed of optically absorbing material. In fact, Guyot teaches away from such an optically absorbing mask. Guyot teaches:

This screen 15, as well as the input screen 21, may be made of a metal with a high reflection coefficient for the light emitted by the scintillator. It may be made of aluminium, for example, or chromium or, again, a diffusing material with a high albedo, such as magnesium for example.

Thus, for the first screen 15, or output screen, as well as for the second screen 20, or input screen, we define the term ‘opaque screen’ to mean a screen which is opaque to the light generated in the scintillator, and does not absorb this light or absorbs little of it, in such a way as to send it back into the scintillator by reflection or diffusion, namely an opaque screen with a high albedo.

Col. 7, Ins. 4-17. Thus, Guyot does not teach an optically absorbing material for screen 15 but rather teaches a screen 15 made of a highly reflective coefficient. It would not be obvious to one skilled in the art to combine the optically absorptive optical mask of Possin with the optically reflective mask of Guyot.

Accordingly, the Examiner has not satisfied the burden to show a *prima facie* case of obviousness. As such, Applicant believes claims 1, 15, 20, and 30, and the claims which depend therefrom, are patentably distinct from the art of record.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-4, 7, 9, 12-15, 18-21, and 24-30.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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